

GCCISD
Network Infrastructure Upgrade Solution
RFP# 121103-2
Dark Fiber
Option

Total Fiber Route Miles for GCCISD:	90.186
GCCISD Total Construction Cost:	\$900,000.00

	Hub Site Name	From	Site Address	Number of Strands	Fiber Route Miles to TMS	Percent of Total Installation Cost	Total Installation Cost	Monthly Maintenance Fee for 15 Years	Estimated Completion Date
1.	Technology Management Systems (TMS)	TMS	607 W Baker		n/a	0.00%	\$0.00	\$181.82	TBD
	School Site Name	Hub Site Name	Site Address	Number of Strands	Fiber Route Miles to TMS	Percent of Total Installation Cost	Total Installation Cost	Monthly Maintenance Fee for 15 Years	Estimated Completion Date
2.	Bowie Elementary	TMS	2200 Clayton St	6	6.098	6.76%	\$60,854.23	\$181.82	TBD
3.	Carver Elementary	TMS	7000 Massey	6	3.977	4.41%	\$39,687.98	\$181.82	TBD
4.	Cedar Bayou Junior High	TMS	2600 Elvinta	6	3.428	3.80%	\$34,209.30	\$181.82	TBD
5.	Crockett Elementary	TMS	4500 Barkloo Rd	6	5.322	5.90%	\$53,110.24	\$181.82	TBD
6.	Pumphrey Elem	TMS	4026 Decker Drive	6	2.746	3.04%	\$27,403.37	\$181.82	TBD
7.	Mann Junior High	TMS	305 Tri-City Beach Rd	6	5.436	6.03%	\$54,247.89	\$181.82	TBD
8.	GCCISD Administration	TMS	4544 Interstate 10	6	3.484	3.86%	\$34,768.15	\$181.82	TBD
9.	Gentry Junior High	TMS	191 E. Archer Drive	6	5.019	5.57%	\$50,086.49	\$181.82	TBD
10.	Harlem Elementary	TMS	3333 Interstate 10	6	4.469	4.96%	\$44,597.83	\$181.82	TBD
11.	Highlands Elementary	TMS	200 E Wallisville Rd	6	7.689	8.53%	\$76,731.42	\$181.82	TBD
12.	Highlands Junior High	TMS	1212 W Wallisville Rd	6	8.258	9.16%	\$82,409.69	\$181.82	TBD
13.	Lamar Elementary	TMS	816 N. Pruett	6	2.689	2.98%	\$26,834.54	\$181.82	TBD
14.	San Jacinto Elementary	TMS	2615 Virginia St	6	5.341	5.92%	\$53,299.85	\$181.82	TBD
15.	School & Community Guidance Center	TMS	1105 Decker Rd	6	3.068	3.40%	\$30,616.73	\$181.82	TBD
16.	Smith Elementary	TMS	403 E. James St	6	4.299	4.77%	\$42,901.34	\$181.82	TBD
17.	Stephen F. Austin	TMS	3022 Massey Thompkins Rd	6	2.992	3.32%	\$29,858.29	\$181.82	TBD
18.	Stuart Career Center/ Alamo Elementary	TMS	300 Wye Dr	6	1.269	1.41%	\$12,663.83	\$181.82	TBD
19.	Trans/Security/Maintenance	TMS	3401 N. Main	6	1.042	1.16%	\$10,398.51	\$181.82	TBD
20.	Travis Elementary	TMS	100 Robin Rd	6	4.735	5.25%	\$47,252.35	\$181.82	TBD
21.	Robert E. Lee High School (RLHS)	TMS	1809 Market St	6	4.280	4.75%	\$42,711.73	\$181.82	TBD
22.	Baytown Junior High (BJH)	TMS	7707 Bayway Drive	6	4.545	5.04%	\$45,356.26	\$181.82	TBD
			Totals for GCCISD:		90.186	100.00%	\$900,000.00	\$4,000.00	

Phonoscope's proposal is based on connecting all sites listed. Individual sites can be quoted separately.

(3)

6

Attachment 1 format for any E-rate service proposed

Attachment Name: _____

Contact Name: Frankie Jackson
Contact Phone #: 1-281-420-4934

Applicant: Goose Creek Consolidated Independent School District
Billed Entity #: 141322
470 Application #: tbd

Service Provider: SPIN# _____ Name: _____
Contract#: tbd
Category: _____
Discount Rate: _____

See Attached

Services Ordered Information -- ELIGIBLE PRODUCTS/SERVICES

Description	Quantity	Months	Unit Cost	Total Cost
TOTAL ELIGIBLE PRODUCTS/SERVICES				

Services Ordered Information -- INELIGIBLE PRODUCTS/SERVICES

Description	Quantity	Months	Unit Cost	Total Cost
TOTAL INELIGIBLE PRODUCTS/SERVICES				

GCCISD
Network Infrastructure Upgrade Solution
RFP# 121103-2
Wide Area Network Option 1

Total Fiber Route Miles for GCCISD:	90.186
GCCISD Total Construction Cost:	\$400,000.00

Hub Site Name	From	Site Address	Fiber Route Miles from Nearest Hub	Percent of Total Installation Cost	Total Installation Cost	SLD Installation Cost	GCCISD Installation Cost	Monthly Service Charge	Estimated Completion Date
1. Technology Management Systems (TMS)	TMS	607 W Baker		0.00%	\$0.00	\$0.00	\$0.00	\$1,500.00	TBD
School Site Name	Hub Site Name	Site Address	Fiber Route Miles from Nearest Hub	Percent of Total Installation Cost	Total Installation Cost	SLD Installation Cost	GCCISD Installation Cost	Monthly Service Charge	Estimated Completion Date
2. Bowie Elementary	TMS	2200 Clayton St	6.098	6.76%	\$27,046.33	\$15,145.94	\$11,900.38	\$1,500.00	TBD
3. Carver Elementary	TMS	7000 Massey	3.977	4.41%	\$17,639.10	\$9,877.90	\$7,761.20	\$1,500.00	TBD
4. Cedar Bayou Junior High	TMS	2600 Elvinta	3.428	3.80%	\$15,204.13	\$8,514.31	\$6,689.82	\$1,500.00	TBD
5. Crockett Elementary	TMS	4500 Barkloo Rd	5.322	5.90%	\$23,804.55	\$13,218.55	\$10,386.00	\$1,500.00	TBD
6. Pumphrey Elem	TMS	4026 Decker Drive	2.748	3.04%	\$12,179.27	\$6,820.39	\$5,358.88	\$1,500.00	TBD
7. Mann Junior High	TMS	305 Tri-City Beach Rd	5.438	6.03%	\$24,110.17	\$13,501.70	\$10,608.48	\$1,500.00	TBD
8. GCCISD Administration	TMS	4544 Interstate 10	3.484	3.86%	\$15,452.51	\$8,653.41	\$6,799.10	\$1,500.00	TBD
9. Gentry Junior High	TMS	191 E. Archer Drive	5.019	5.57%	\$22,260.66	\$12,465.97	\$9,794.69	\$1,500.00	TBD
10. Harlem Elementary	TMS	3333 Interstate 10	4.469	4.98%	\$18,821.28	\$11,099.90	\$8,721.35	\$1,500.00	TBD
11. Hooper Primary	TMS	200 E Wallisville Rd	7.689	8.53%	\$34,102.85	\$19,097.60	\$15,005.26	\$1,500.00	TBD
12. Highlands Junior High	TMS	1212 W Wallisville Rd	8.258	9.16%	\$38,626.53	\$20,510.86	\$16,115.67	\$1,500.00	TBD
13. Lanier Elementary	TMS	816 N. Pruett	2.689	2.98%	\$11,928.46	\$6,676.82	\$5,247.64	\$1,500.00	TBD
14. San Jacinto Elementary	TMS	2615 Virginia St	5.341	5.92%	\$23,689.82	\$13,265.74	\$10,423.08	\$1,500.00	TBD
15. School & Community Guidance Center	TMS	1105 Decker Rd	3.088	3.40%	\$13,607.43	\$7,620.16	\$5,987.27	\$1,500.00	TBD
16. Smith Elementary	TMS	403 E. James St	4.299	4.77%	\$19,067.26	\$10,677.67	\$8,389.59	\$1,500.00	TBD
17. Stephen F. Austin	TMS	3022 Massey Thompsons Rd	2.992	3.32%	\$13,270.35	\$7,431.40	\$5,838.96	\$1,500.00	TBD
18. Stuart Career Center/ Alamo Elementary	TMS	300 Wye Dr	1.269	1.41%	\$5,628.37	\$3,151.89	\$2,476.48	\$1,500.00	TBD
19. Trans/Security/Maintenance	TMS	3401 N. Main	1.042	1.16%	\$4,621.56	\$2,586.07	\$2,033.49	\$1,500.00	TBD
20. Travis Elementary	TMS	100 Robin Rd	4.735	5.25%	\$21,001.04	\$11,760.58	\$9,240.46	\$1,500.00	TBD
21. Robert E. Lee High School (RLHS)	TMS	1808 Market St	4.280	4.75%	\$18,982.99	\$10,630.47	\$8,352.52	\$1,500.00	TBD
22. Baytown Junior High (BJH)	TMS	7707 Bayway Drive	4.545	5.04%	\$20,158.34	\$11,288.67	\$8,869.67	\$1,500.00	TBD
Totals for GCCISD:			90.186	100.00%	\$400,000.00	\$224,000.00	\$176,000.00	\$33,000.00	

Phonoscope's proposal is based on connecting all sites listed. Individual sites can be quoted separately.

3

GCCISD
Network Infrastructure Upgrade Solution
RFP# 121103-2
Wide Area Network Option 2

Total Fiber Route Miles for GCCISD:	97.950
GCCISD Total Construction Cost:	\$450,000.00

	Hub Site Name	From	Site Address	Fiber Route Miles from Nearest Hub	Percent of Total Installation Cost	Total Installation Cost	SLD Installation Cost	GCCISD Installation Cost	Monthly Service Charge	Estimated Completion Date
1.	Technology Management Systems (TMS)	TMS	607 W Baker		0.00%	\$0.00	\$0.00	\$0.00	\$1,500.00	TBD
	School Site Name	Hub Site Name	Site Address	Fiber Route Miles from Nearest Hub	Percent of Total Installation Cost	Total Installation Cost	SLD Installation Cost	GCCISD Installation Cost	Monthly Service Charge	Estimated Completion Date
2.	Bowie Elementary	TMS	2200 Clayton St	6.098	6.23%	\$28,015.31	\$15,688.58	\$12,326.74	\$1,500.00	TBD
3.	Carver Elementary	TMS	7000 Massey	3.977	4.06%	\$18,271.06	\$10,231.79	\$8,039.26	\$1,500.00	TBD
4.	Cedar Bayou Junior High	TMS	2600 Elmira	3.428	3.50%	\$15,748.85	\$8,819.36	\$6,929.49	\$1,500.00	TBD
5.	Crockett Elementary	TMS	4500 Barkloo Rd	5.322	5.43%	\$24,450.23	\$13,692.13	\$10,758.10	\$1,500.00	TBD
6.	Pumphrey Elem	TMS	4026 Decker Drive	2.746	2.80%	\$12,815.62	\$7,064.75	\$5,550.87	\$1,500.00	TBD
7.	Manh Junior High	TMS	305 Tri-City Beach Rd	5.436	5.55%	\$24,973.97	\$13,985.42	\$10,988.55	\$1,500.00	TBD
8.	GCCISD Administration	TMS	4544 Interstate 10	3.484	3.58%	\$16,006.13	\$8,983.43	\$7,042.70	\$1,500.00	TBD
9.	Gentry Junior High	TMS	191 E. Archer Drive	5.018	5.12%	\$23,058.19	\$12,912.59	\$10,145.60	\$1,500.00	TBD
10.	Harlem Elementary	TMS	3333 Interstate 10	4.469	4.56%	\$20,531.39	\$11,497.58	\$9,033.81	\$1,500.00	TBD
11.	Hooper Primary	TMS	200 E Wallisville Rd	7.889	7.85%	\$35,324.66	\$19,781.81	\$15,542.85	\$1,500.00	TBD
12.	Highlands Junior High	TMS	1212 W Wallisville Rd	8.258	8.43%	\$37,938.74	\$21,245.70	\$16,693.05	\$1,500.00	TBD
13.	Lamar Elementary	TMS	816 N. Pruett	2.689	2.75%	\$12,353.75	\$6,918.10	\$5,435.65	\$1,500.00	TBD
14.	San Jacinto Elementary	TMS	2615 Virginia St	5.341	5.45%	\$24,537.52	\$13,741.01	\$10,796.51	\$1,500.00	TBD
15.	School & Community Guidance Center	TMS	1105 Decker Rd	3.068	3.13%	\$14,094.95	\$7,893.17	\$6,201.78	\$1,500.00	TBD
16.	Smith Elementary	TMS	403 E. James St	4.299	4.39%	\$19,750.38	\$11,080.21	\$8,690.17	\$1,500.00	TBD
17.	Stephen F. Austin	TMS	3022 Massey Thompson Rd	2.992	3.05%	\$13,745.79	\$7,697.64	\$6,048.15	\$1,500.00	TBD
18.	Stuart Career Center/ Alamo Elementary	TMS	300 Wye Dr	1.269	1.30%	\$5,830.02	\$3,284.81	\$2,585.21	\$1,500.00	TBD
19.	Trans/Security/Maintenance	TMS	3401 N. Main	1.042	1.06%	\$4,787.14	\$2,680.60	\$2,106.54	\$1,500.00	TBD
20.	Travis Elementary	TMS	100 Robin Rd	4.735	4.83%	\$21,753.45	\$12,181.93	\$9,571.52	\$1,500.00	TBD
21.	Robert E. Lee High School (RLHS)	TMS	1809 Market St	4.280	4.37%	\$19,663.09	\$11,011.33	\$8,651.76	\$1,500.00	TBD
22.	Baytown Junior High (BJH)	TMS	7707 Bayway Drive	4.545	4.64%	\$20,880.55	\$11,693.11	\$9,187.44	\$1,500.00	TBD
23.	Robert E. Lee High School (RLHS) - redundant circuit	TMS	1809 Market St	4.280	4.37%	\$19,663.09	\$11,011.33	\$8,651.76	\$750.00	TBD
24.	GCCISD Administration - redundant circuit	TMS	4544 Interstate 10	3.484	3.58%	\$16,006.13	\$8,983.43	\$7,042.70	\$750.00	TBD
Totals for GCCISD:				97.950	100.00%	\$450,000.000	\$252,000.000	\$198,000.000	\$34,500.000	

Phonoscope's proposal is based on connecting all sites listed. Individual sites can be quoted separately.

(F)

Verizon
6210 Rothway
Houston, TX, 77040



December 17, 2003

Frankie Jackson
Goose Creek ISD
4544 I-10 East
Baytown, TX, 77521

Dear Frankie Jackson

Verizon has the privilege of being a communications provider of Goose Creek ISD technology products and services that support your district's staff, administration, and students. We are impressed with the School District's vision for using technology as a tool to better serve your community and students. We look forward to working with Goose Creek ISD as you embark upon this year's implementation of products and services that will assist you in the delivery of your exemplary programs to ensure that all students are successful learners.

Verizon brings to Goose Creek ISD the experience, stability, strength, and value of one of the largest telecommunication companies in the country, plus the benefits of working with a Fortune 10 Company. Verizon has been significantly involved in communications for more than 100 years. By offering products and services that Verizon's customers need and an excellent level of service, Verizon is a respected leader in the communications industry. As a leader, Verizon has a strong national presence and vast technological expertise. Finally, Verizon adds value by providing level of customer support and extensive experience. Verizon embraces a philosophy of total Customer Satisfaction.

Verizon has the technical expertise to address all aspects of your telecommunications environment with over 2500+ field technicians. We even have 500 employees with Cisco certifications, as well as employees with Nortel and Alcatel certifications. And we expect these numbers to continue to grow. In fact, one of our senior technologists just became one of only 12 "triple CCIEs" in the world with Cisco certifications in WAN networking, routing and switching as well as communications and services focusing on IP network design.

Option 2 Internet Access

3B

Use or disclosure of this information is subject to the restriction found on the title page of this document.

December 18, 2003



Option 2 Internet Access

3B

Description	Quantity	Months	Unit cost	Total
Dedicated Internet Access Port Only T-1	1.5Mbps	12	\$389.33/Mbps	\$584.00
Dedicated Internet Access Port Only T-1	1.5Mbps	24	\$336.67/Mbps	\$553.00
Dedicated Internet Access Port only T-1	1.5Mbps	36	\$316.67/Mbps	\$475.00
Dedicated Internet Access Port Only N x T-1	3Mbps	12	\$334.00/Mbps	\$1,001.00
Dedicated Internet Access Port Only N x T-1	3Mbps	24	\$278.00/Mbps	\$833.00
Dedicated Internet Access Port Only N x T-1	3Mbps	36	\$255.00/Mbps	\$765.00
Dedicated Internet Access Port Only N x T-1	6Mbps	12	\$322.00/Mbps	\$1,929.00
Dedicated Internet Access Port Only N x T-1	6Mbps	24	\$278.00/Mbps	\$1,667.00
Dedicated Internet Access Port Only N x T-1	6Mbps	36	\$262.00/Mbps	\$1,570.00
Dedicated Internet Access Port Only DS-3	5Mbps	12	\$303.00/Mbps	\$1,514.00
Dedicated Internet Access Port Only DS-3	5Mbps	24	\$262.00/Mbps	\$1,309.00
Dedicated Internet Access Port Only DS-3	5Mbps	36	\$247.00/Mbps	\$1,233

Other charges and Services

Advanced Features and Services

	NRC	MRC
BGP4 Routing	\$500	N/A
Primary DNS (initial 10-pack)	Included	Included
Primary DNS (per add'l 10-pack)	\$100	\$75
Secondary DNS (initial 10-pack)	Included	Included
Secondary DNS (per add'l 10-pack)	\$100	\$50
Usage Reporting (per serial interface)	Included	Included
Network News Feed (initial)	Included	Included
Network Newsfeed (additional)	\$100	\$100

Notes (Advanced Features and Services)

(1) Additional primary and secondary DNS services are sold in units of ten domain names (10-pack).

(2) Charges for primary and secondary DNS packages assume an average of 10 kilobytes of zone file data per zone. Up to 100 KB of zone file data are therefore permitted per 10-pack. Customers requiring larger zone file databases will receive a special quotation.

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Option 3

Wide Area Network Services

3C

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December 18, 2003

✓ **verizon**

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Option 3 - Wide Area Network Services

Campus Name	City	Address	Type Of Connection Proposed	Footage From Technology	Total Miles	Reoccurring or Non Reoccurring Cost	Discount If Location Removed	See Footnote	Total Cost
Technology Management Systems	Baytown	607 Baker Road	Fiber WAN	0	0.00		0	(#1)	
Sterling High School	Baytown	600 Baker Road	Connected	0	0.00		0	(#2)	
Central Administration	Baytown	4544 Interstate 10	Fiber WAN	19642	3.50		0	(#3)	72,782.91
Transportation, Maint, Security	Baytown	3401 N. Main	Fiber WAN	11334	2.02		5,975.00		41,997.84
West Town/SCGC/ALP	Baytown	4026 Decker Drive	Connected		0.00			(#4)	
Pumphrey Elementary	Baytown	4901 Fairway	Fiber WAN	14798	2.63		6,998.43	(#4)	\$4,833.60
Robert E. Lee High School	Baytown	1809 Market St	Fiber WAN	24425	4.35		6,403.43		\$0,506.19
Lee Annex	Baytown	1105 Decker St	Fiber WAN	22869	4.07		21,397.43		\$4,740.47
Stuart Career Center (SCC)	Baytown	300 Wye Dr	Fiber WAN	9135	1.63		11,627.53		\$3,849.50
Alamo Elementary	Baytown	302 Wye Dr	Connected	0	0.00			(#5)	
Baytown Junior High School	Baytown	7707 Bayway Drive	Fiber WAN	25925	4.61		73,204.08		\$6,064.40
Cedar Bayou Junior High School	Baytown	2600 Elvinta	Fiber WAN	36367	6.47		31,042.38		\$4,756.95
Gentry Junior School	Baytown	191 E. Archer Rd	Fiber WAN	21490	3.82		53,723.78		\$9,630.62
Highlands Elementary	Highlands	200 E. Wallisville Rd	Fiber WAN	47135	8.39		31,107.83		\$7,657.49
Hopper Primary	Highlands	405 E. Houston	Connected	0	0.00			(#6)	
Harlem Elementary	Baytown	3333 Interstate 10	Fiber WAN	26348	4.69		27,305.78		\$7,631.81
Highlands Junior High	Highlands	1212 E. Wallisville Rd	Fiber WAN	43183	7.68		7,593.43		\$0,013.46
Ashbel Smith Elementary	Baytown	403 E. James	Fiber WAN	21987	3.91		5,808.43		\$1,472.24
Horace Mann Junior High	Baytown	310 S. Hwy 146	Fiber WAN	24595	4.38		26,675.08		\$1,136.12
Dezavala Elementary	Baytown	305 Tri-City Beach Rd	Connected	0	0.00			(#7)	
Carver Elementary	Baytown	7000 Massey	Fiber WAN	22483	4.00		30,034.33		\$3,310.16
San Jacinto Elementary	Baytown	2615 Virginia St	Fiber WAN	31429	5.59		48,071.28		\$6,459.32
Bowie Elementary	Baytown	2200 Clayton St	Fiber WAN	32225	5.73		6,403.43		\$9,408.88
Travis Elementary	Baytown	100 Robin Road	Multimode	700	0.12		6,998.43	(#8)	\$2,593.83
Lamar Elementary	Baytown	816 N. Pruett	Fiber WAN	16604	2.95		5,808.43		\$1,525.68
Stephen F. Austin Elementary	Baytown	3022 Massey-Tompkins Rd	Fiber WAN	23496	4.18		65,665.43		\$7,063.80
Crockett Elementary	Baytown	4500 Barkaloo Rd	Fiber WAN	10560	1.88		5,975.03		\$9,129.80

subtotal	\$ 1,803,565.08
permit fees**	\$ 10,000.00
TOTAL	\$ 1,813,565.08

- (1) Technology Management Systems - This is the beginning point of the Star Topology for the proposed private WAN
- (2) Sterling High School - This school is already connected to the Technology Center with existing multimode fiber
- (3) The trunk fiber between the Technology Center and the Administration Building cannot be excluded. This fiber connects these two buildings and the North and South areas.
- (4) Pumphrey Elementary - West Town/SCGC/ALP - These are connected currently with multimode fiber, the WAN will be brought into Pumphrey Elementary and the other buildings will stay connected with the existing cable
- (5) Alamo Elementary - This school is connected to Stuart Career Center with existing multimode fiber
- (6) Hopper Primary - This school is connected to Highlands Elementary with existing multimode fiber
- (7) Dezavala Elementary - This school is connected to Horace Mann Jr. High School with existing multimode fiber



Option 3 - Wide Area Network Services

(8) Travis Elementary - Verizon will connect this to Baytown Jr. High School with 6 strand multimode fiber

** This figure covers any permit fees that might be necessary. It may or may not be included in the final price, depending on what permits are needed.



C



International Business Machines Corporation

Two Riverway
Houston, TX 77056

December 18, 2003

Ms. Frankie Jackson
Goose Creek CISD
PO Box 30
Baytown, TX 77522

Dear Ms. Jackson:

IBM appreciates the opportunity to respond to your Request for Proposal #121103-2 "Network Infrastructure Upgrade Solution" and Addendums #1 and #2. Clearly, the district is planning on a significant undertaking (and investment) to upgrade technology to support the district's education and administrative needs for the long term.

IBM, through our services division IBM Global Services (IGS), is the world's largest supplier of infrastructure services. Our breadth and depth of skills include basic research, product development (HW and SW), manufacturing, standards bodies' participation, design and engineering, implementation, service and support. While IBM is a Global Corporation, it is always our intent to support clients locally. To that end the Houston area team has a complete set of skills (marketing, engineering, implementation, service, and support) to deliver the appropriate solution for GCCISD. It is this Global scalability with Local capability that makes IBM the partner of choice for many clients.

IBM believes in delivering standards based solutions that deliver demonstrable business value to our clients. We will partner with other vendors appropriately to provide the best value to Goose Creek in the manner that makes the most sense (and is cost effective) to you. IBM's offerings are governed solely by the IBM Customer Agreement (ICA). Specific service engagements have additional terms and conditions, which are governed by Statement's of Work (SOW), appropriate for each transaction.

The breadth of this request combined with the dependencies that one phase of the project will have on another will undoubtedly require district interaction with vendors prior to bid award. IBM looks forward to discussing our proposal with you at your earliest convenience and demonstrating our ability to deliver business value to the district. Please contact me with any questions or discussions you wish to have at either 713-940-1370 or dwillia1@us.ibm.com.

Sincerely,

Daryl E. Williams
IBM Client Executive



Option 2: Internet Access –

Access to the Internet and/or Internet2.

IBM RESPONSE:

IBM is willing to make available our WAN solution to the selected ISP should the district decide that this combination would provide the lowest cost to deliver ISP service to the schools.





Solution Description/Approach:

For the Wide Area Network services solution, IBM chose to work with Ceragon to provide GCCISD with an immediate, efficient and cost effective solution that meets the broadband demands of today with a infrastructure capable of handling the challenges of tomorrow.

Wireless WAN

IBM proposes to replace the current 1.5 Mbps WAN with wireless 100 Mbps high speed WAN infrastructure. In addition, the design also includes a 300 Mbps redundant high speed wireless backbone to provide high availability and high bandwidth between the hub sites. The design described here is based on geographic locations of the schools only.

The final design will be affected by a WAN site survey and other factors provided by GCCISD.

There are total of 23 wireless links including one 300Mbps link and twenty-two 100Mbps links in this design based on provided GCCISD campuses.

Dual Hubs with Redundancy build-in

The Wide Area Network for Goose Creek Consolidated ISD will consist of a dual hub-and-spoke topology using point-to-point wireless technologies. The North hub will be located at the Central Administration office, and the South hub will be located at the Ashbel Smith Elementary. For more backbone traffic protection between the hubs, a redundant link from Central Administration –to Sterling HS to- Ashbel Smith Elementary will be part of the design to provide high availability (HA). School locations in each geographic area of the district will be connected to its closest central hub site.

The main backbone between Central Administration and Ashbel Smith Elementary will be 300 Mbps link and the spoke links to each school will have a 100 Mbps wireless link to the designated hub site to provide networking services. There will be two main towers at each of the hub site along with two other smaller towers at Gentry Jr. High and Highland Elementary that are necessary for them to clear the terrain and obtain Line-Of-Sight.

Reliable, Scalable Solution

The wireless WAN system is fully upgradeable from 100 Mbps to 600 Mbps to meet the bandwidth requirement as well as for budgetary needs.

The wireless WAN system can be easily expanded to add new sites to the hub and spoke system with additional “pair” of equipment. On the topic of reliability, based on the



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available GCCISD information, the Ceragon equipment has been calculated to provide up to 99.9+% of up time in a year.

The Administration Center hub will have one (1) 300 Mbps linkside) (Included Ashbel Smith side), seven (7) 100 Mbps links and the Ashbel Smith Elementary hub will have fifteen (15) 100 Mbps links. This will increase the current WAN capacity from 1.5 Mbps to up to 300 Mbps. The new Ceragon equipment will be FCC licensed at 11, 18 and 23GHz. These frequencies provide reliable communication at a distance of up to 15 miles (11GHz), 12 miles (18GHz) and 10 miles (23 GHz) depending on the antenna size and design. These distances are more than sufficient for all GCCISD locations. In addition, since all Ceragon links are FCC licensed, this will minimize potential interference problems with other wireless equipment that may be deployed in the area.

The wireless WAN equipment will be installed in locations that will maintain Line-of-Sight. Site survey will need to be performed on the existing infrastructure to determine the best method for mounting the equipment.

Ease of Management and Maintenance

The new wireless WAN equipment can be easily managed over the network with Ceragon's Ceraview interface. This interface can provide monitoring and management of the entire system from one central location. In addition, maintenance firmware update and configuration changes can also be performed using this tool. As a secondary method to the system the In-Door Unit (IDU) can be reached by using a simple Telnet session.

Leverage Existing WAN fiber connectivity

There are 4 links that are currently served by fiber, which will be connected to the new network infrastructure and are not part of the wireless WAN infrastructure proposed here.

Sterling to TMS	100 Mbps	Existing Fiber
West Town to Pumphrey	100 Mbps	Existing Fiber
Alamo Elementary to Stuart Career Center	100 Mbps	Existing Fiber
Hopper Primary to Highland Elementary	100 Mbps	Existing Fiber

WORK PLAN

Site Survey, Network Design and Implementation

The objective is to develop a detailed design document to be used during the installation, configuration, and validation, and is based on the information collected from site survey

**IBM****G**

and Goose Creek's networking and communication requirements. The following tasks will be performed:

- ~~Develop the high-level design documentation for the wireless WAN networking solution that will be implemented, including logical network topology diagrams, functional requirements, projected traffic requirements, IP addressing, equipment configuration.~~
- Work with Goose Creek to validate the topology and components of the proposed solution and develop a post implementation test to verify the wireless network.
- Create the Implementation document to be used during the installation, configuration, and validation of wireless WAN network.

Training

40 Hours of training with GCCISD personnel on managing the wireless WAN network using a central management method.

Assumptions:

1. The hub sites for this response were chosen based on topographical analysis of all the locations that need WAN connectivity. Actual hub site will be determined after a Site Survey has been performed. Additional tower or equipment maybe needed as the result of Site Survey.
2. TMS is assumed to be moving from its current location to Central Administration offices.
3. Assume all tower structures will be in compliance with any local zoning ordinates.
4. Assume all FCC license application will be approved.
5. Assume towers needed for distance over 4 miles.

Why IBM?

1. IBM has the wireless WAN deployment experience for the job. The wireless WAN network can be easily deployed with minimum schedule, there are no waiting times for right-of-way and other construction issues related to fiber deployment. Once any towers that may be required are constructed the deployment time for each link is 1-2



days. This fast implementation compares very favorably to fiber deployments that can take months or even years to fully implement.

2. ~~IBM can leverage our wireless solution alone or in combination with other vendor's~~ fiber options. This approach gives Goose Creek maximum flexibility in terms of network design and future capabilities for new facilities and reconfiguring of existing facilities
3. IBM has extensive experience with the deployment of Ceragon WAN equipment and has a strong committed relationship with Ceragon management and technical services.
4. IBM has the wireless Project Management, Design and Implementation experience in the education sector.
5. Ownership of the district's infrastructure is an option with Wireless. Choice is not something school districts have had in this area and the Wireless WAN allows for either a purchase of the technology or a lease of bandwidth for the district.
6. Long-term maintenance costs are very low as there is no fiber or cable plant to maintain throughout the community.
7. IBM's strengths and experience in similar large-scale customer deployments and innovative technology deployment methodologies will provide Goose Creek CISD with an optimum solution, while ensuring that accountability is still held to a single organization. IBM is providing Goose Creek CISD with a response to the RFP that leverages the best of the varied IBM services. The solution proposed by IBM meets the requirements of the RFP and exceeds the requirements in some areas.
8. The IBM-Ceragon team provides the customer with an immediate, efficient and cost effective solution that meets the broadband demands of today with the infrastructure capable of handling the challenges of tomorrow. IBM-Ceragon accomplishes this solution by deploying licensed point to point microwave radio systems that extend pervasively throughout a customer's network. The seamless deployment of these systems along with the associated network equipment provides communications and data services to the customers that are without parallel in other networks.



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GOOSE CREEK CONSOLIDATED INDEPENDENT SCHOOL DISTRICT (GCCISD)**REQUEST FOR PROPOSAL (RFP) #121103-2****NETWORK INFRASTRUCTURE UPGRADE SOLUTION****Option 3 – Wide Area Network Services**

Campus Name	City	Address	Type of Connection Proposed	Total Miles	Recurring or Nonrecurring Cost	Total Cost
Technology Mgmt Systems	Baytown	607 W. Baker	*100 Mbps	0.1	Nonrecurring	\$0
Sterling High School	Baytown	300 Baker Rd.	100 Mbps	2.61	Nonrecurring	\$92,400
Central Administration	Baytown	4544 Interstate 10	**300Mbps	5.09	Nonrecurring	\$136,000
Transportation, Maint, Security	Baytown	3401 N. Main	100 Mbps	1.73	Nonrecurring	\$46,400
West Town/SCGC/ALP	Baytown	4026 Decker Dr.	*100 Mbps	1.61	Nonrecurring	\$0
Pumphrey Elementary	Baytown	4901 Fairway	100 Mbps	2.58	Nonrecurring	\$46,400
Robert E. Lee High School	Baytown	1809 Market St.	100 Mbps	1.58	Nonrecurring	\$46,400
Lee Annex	Baytown	1105 Decker St.	100 Mbps	1.16	Nonrecurring	\$46,400
Stuart Career Center (SCC)	Baytown	300 Wye Dr.	100 Mbps	1.61	Nonrecurring	\$46,400
Alamo Elementary	Baytown	302 Wye Dr.	*100 Mbps	0.1	Nonrecurring	\$0
Baytown Junior High School	Baytown	7707 Bayway Dr.	100 Mbps	3.06	Nonrecurring	\$46,400
Cedar Bayou Jr. High School	Baytown	2600 Elvinta	100 Mbps	1.99	Nonrecurring	\$46,400
Gentry Junior School	Baytown	191 E. Archer Rd.	100 Mbps	4.46	Nonrecurring	\$85,000
Highlands Elementary	Highlands	200 E. Wallisville Rd.	100 Mbps	4.03	Nonrecurring	\$85,000
Hopper Primary	Highlands	405 E. Houston	*100 Mbps	0.25	Nonrecurring	\$0
Harlem Elementary	Baytown	3333 Interstate 10	100 Mbps	1.23	Nonrecurring	\$46,400
Highland Junior High	Highlands	1212 E. Wallisville Rd.	100 Mbps	3.26	Nonrecurring	\$46,400
Ashbel Smith Elementary	Baytown	403 E. James	**300Mbps	5.09	Nonrecurring	\$136,000
Horace Mann Junior High	Baytown	310 S. Hwy. 146	100 Mbps	0.65	Nonrecurring	\$46,400
Dezavala Elementary	Baytown	305 Tri-City Beach Rd.	100 Mbps	0.68	Nonrecurring	\$46,400
Carver Elementary	Baytown	7000 Massey	100 Mbps	0.81	Nonrecurring	\$46,400
San Jacinto Elementary	Baytown	2615 Virginia St.	100 Mbps	2.48	Nonrecurring	\$46,400
Bowie Elementary	Baytown	2200 Clayton St.	100 Mbps	1.24	Nonrecurring	\$46,400



Option 3 – Wide Area Network Services

Campus Name	City	Address	Type of Connection	Total Miles	Reoccurring or Nonrecurring Cost	Total Cost
			Proposed			
Travis Elementary	Baytown	100 Robin Rd.	100 Mbps	3.27	Nonrecurring	\$46,400
Lamar Elementary	Baytown	816 N. Pruett	100 Mbps	0.68	Nonrecurring	\$46,400
Steven F. Austin Elementary	Baytown	3022 Massey-Tompkins	100 Mbps	2.98	Nonrecurring	\$46,400
Crockett Elementary	Baytown	4500 Barkaloo Rd.	100 Mbps	2.84	Nonrecurring	\$46,400
Project Management and Engineering					Nonrecurring	\$311,125

*Existing fiber connectivity, no upgrade proposed.

** Main hub-site links, must order together, total cost = \$272,000

Estimated Charges

The overall estimated charge for the proposed system, as designed here, is \$1,680,725.

The cost includes the following items:

1. Wireless WAN equipment including spare equipment.
2. IBM Project Management and System Engineering
3. Two main-hub towers, two node towers.
4. 5-years wireless WAN equipment warranty
5. Design and installation of all WAN equipment
6. FCC license fee for the wireless WAN frequencies



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Attachment 1 format for any E-rate service proposed

Attachment Name: Option 3 - Wide Area Network Services

Contact Name: Frankie Jackson

Contact Phone #: 1-281-420-4934

Applicant: Goose Creek Consolidated Independent School District

Billed Entity #: 141322

470 Application #: tbd

Service Provider : SPIN# 143005607

Name: IBM

Contract#: tbd

Category: _____

Discount Rate: _____

Services Ordered Information - ELIGIBLE PRODUCTS/SERVICES

Description	Quantity	Months	Unit Cost	Total Cost
TOTAL ELIGIBLE PRODUCTS/SERVICES				

Services Ordered Information - INELIGIBLE PRODUCTS/SERVICES

Description	Quantity	Months	Unit Cost	Total Cost
TOTAL ELIGIBLE PRODUCTS SERVICES				



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Ron Reckrodt
President

December 17, 2003

Mr. Lester Sloan, Director of Purchasing
Goose Creek Consolidated Independent School District
1415 Market Street
Baytown, Texas 77520

Dear Mr. Sloan:

We at Unite are pleased to provide this response to the Goose Creek Consolidated Independent School District RFP #121103-2, **NETWORK INFRASTRUCTURE UPGRADE SOLUTION**. Unite has provided pricing for Option 3 and a portion of Option 5 (*Digital Transmission Services*). Unite is proposing a GigE Wide Area Network solution to comply with Erate eligibility requirements and further proposing additional strands of "dark fiber" under a separate agreement to ensure the district has a scalable solution that will meet bandwidth needs of the GCCISD for the next decade. Unite looks forward to the opportunity to respond to any RFP questions the district may have on this subject as well as the opportunity to provide a presentation to appropriate district representatives if desired.

Option 1 - Internal Connections

Unite is not providing a response to Option 1 as part of this proposal response. Unite would be willing to discuss providing solutions for Option 1 on a "time and materials" basis.

Option 2 - Internet Access

Unite is proposing Internet to the GCCISD in a bandwidth measurement of 9mbps for \$4510 per month on an annual contract with a NRC of \$1750. The "loop" charge for the Internet connection is \$3253 per month of the \$4510. This loop charge represents twenty-four miles. It is possible that given the large foot print of the proposed GCCISD that this price could be dramatically reduced. Unite is willing to investigate alternative loop lengths but was unable to do so because of the short time frame associated with the RFP response.

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Option 3 – Wide Area Network

Unite's principle RFP response to the GCCISD is to provide Wide Area Network (WAN) services at Gigabit Ethernet bandwidth for twenty seven facilities at twenty three locations. Four sites already have fiber between buildings that can be used for completion of the WAN connection to all locations. Unite's proposal is a full fiber optic solution using standard single mode (SMF-28) fiber. Additional "dark fiber" which is no longer an Erate eligible item will also be offered as an "add on only" option. The availability of dark fiber allows for significant growth throughout the contract life as well as initially for items that may not have been considered immediately. In all likelihood a WAN solution for GCCISD consisting of multiple strands of dark fiber in addition to the initial GigE bandwidth will never be taxed to it's fullest capacity either in whole or in part. Fiber optic capacity continues to increase and will continue do so during the life of the contract due to the rapid pace of enhancements to transport technology such as Dense Wave Division Multiplexing (DWDM). Districts where Unite is currently providing WAN and dark fiber services are now considering applications that only a couple of years ago were initially viewed as too expensive or untested. Of special contemporary interest to districts are applications such as school security, VOIP, energy management, server hardware consolidation, and last but not least; internal network security.

A WAN solution by Unite also puts the GCCISD Technology department in charge of it's own destiny. Imagine, instant increases in bandwidth simply by adding a module and patch cord! No waiting for the local phone company to reroute or reconfigure and no additional monthly cost. Because Unite provides appearances of each fiber in the "hub" sites' fiber distribution panel (FDP), the district can choose to reroute at will. Unless GCCISD wants to notify Unite of a change in network configuration Unite's involvement will be minimal with respect to GCCISD dark fiber WAN reconfiguration. Last minute distance learning changes, videoconferences that change origination locations, teachers that have computer class "projects" and school computer clubs can all be accommodated like never before with a WAN and dark fiber network by Unite. Isolation of each of these applications if desired is as simple as using dedicated fibers for each. For these reasons Unite believes a Unite WAN solution for GCCISD represents an extraordinary opportunity for the GCCISD to realize excellent technology enabled support on both academic and administrative levels.

No equipment is specified under Option 3. Please see discussion on this subject in **Option 5 – (subpart "Digital Transmission Services")**.

Option 4 – Voice / Video IP Solutions

Unite is not providing a specific solution to this option but will have sufficient bandwidth available to accomidate any voice or data solution proposed under this option.

Option 5 – Other Technology Based Systems

Unite is only providing a proposal for *Digital Transmission Services* since this is required to bring the fiber optic WAN into compliance with the latest Erate eligibility list. Unite is proposing GigE bandwidth using Cisco Systems technology. Cisco Systems equipment will include 2900 and 3500

**Goose Creek Consolidated Independent School District (GCCISD)
Request for Proposal (RFP) #121103-2
Network Infrastructure Upgrade Solution**

c. Proposed Solution.

1. Vendors must recommend the configuration of the infrastructure upgrade components. This may include file servers, buildout/construction of fiber, wireless equipment, routers, switches, wiring, etc. Vendor proposed solutions must include a completed exhibit with detailed hardware, software, and infrastructure specifications.

Unite's proposal provides fiber optic cable to all twenty seven facilities listed in the RFP with the exception of those listed in Table 3 of the RFP that already have connectivity to another district facility. Unite's proposal includes all outside fiber optic cable and other outside equipment, as well as building entries, wall or floor mounted fiber distribution panels (FDP's), fiber jumpers required to connect the FDP to electronic digital transport equipment and GigE electronic digital transport equipment. Unite will place the digital transport equipment and FDP's in a location specified by the GCCISD. Internal Connections to tie the digital transport equipment to the existing servers is not included.

2. Vendors must address backup and recovery in their solution proposals, which will include the capability to backup the network from a central location. Size should allow for growth over the next 5 years.

Unite's proposal provides for adequate additional capacity to accommodate GCCISD's growth over the next ten years. Unite is proposing a central location of the TMS or Sterling High School and is provisioning for an additional six strands of "dark fiber" under the "Fully Constructed" option and an additional two strands to each school under the "Third Party" option. Given the fast pace of technology it is unlikely that GCCISD will ever exceed available capacity in either case.

3. Vendors must propose a cost for upgrading GCCISD existing network operating software to the most cost-effective network integration solution.

Unite is not responding to this Option.

4. Vendors must propose a network design that may include voice, video, and distance education capabilities.

Unite's proposal provides bandwidth to accommodate voice, video and distance education.

5. Vendors must consider long-term costs in the proposed solution such as licensing, annual support, manpower support, and future growth considerations. A total 5 year cost of ownership must be provided.

Unite agrees but will lease the WAN service to GCCISD in order to comply with Erate stipulations.

6. Vendors that are proposing a fiber solution must break out total number of miles and costs by campus using the Network Integration RFP Attachment 2 format.

No Attachment 2 format was provided. Unite has provided the information requested it's own format.

7. Vendors must present a solution for which the overall monitoring of the Wide Area Network is possible from a single location (single-point-of-administration).

Unite Agrees – Unite provides VPN monitoring.

8. Vendors must present a project plan with detailed activities of the work to be performed including scheduled start/stop dates and manpower estimates.

Unite Agrees – See “Project Schedule” Section for timelines. Unite will contract for any construction work needing to be accomplished. If successful Unite will open an office in the Baytown area. Unite will hire sub-contractors to build the fiber optic WAN. Unite has proposed an over-all time frame of nine months from contract award to completion of construction (acceptance) under the “Fully Constructed” option. Under the “Third Party” option it is expected that the construction time will be significantly less.

9. Vendors should address network security in their solution proposals. The solution must comply with the National Computer Security Center's Network Security criteria.

A WAN provided by Unite provides unparalleled levels of security since it is totally isolated from the public switched telephone network or any other public data system. The only entry point for network security is via the interface between the digital transmission equipment and GCCISD facilities.

10. Vendors should provide a list of quantifiable reasons for selecting their proposed solution.

Unite Agrees – Unite has several quantifiable reasons for being selected to provide solutions to Option 3 and a portion of Option 5.

- a. **Unite focuses on a “high touch” approach to customer service. This approach provides measurable results in the form of response time, system uptime, financial savings on subsequent projects, and several other items.**
- b. **Unite has extensive experience in providing WAN's to entities in four states. Unite provides both large and small WAN systems to school districts in it's four state territory. Unite has systems as small as three schools and systems as large as fifty-nine schools. This broad experience**

- base will provide the GCCISD with assurance that systems will be up for more time and any outage event will be dealt with in a timely manner.
- c. Unite personnel have been working with SLD and the Erate program for several years and consequently often have more knowledge of the program than the districts. Unite freely shares this knowledge with it's school district customers. This assistance to GCCISD allows for greater confidence of successful Erate filings.
 - d. Unite's exposure to several other districts has important ramifications for all the districts as a whole. Because of this exposure Unite is in a unique position to know what's working and what's not and to pass that information on to all of it's customers. This knowledge is especially important with respect to Erate and technology changes and translates into financial savings on several fronts.

11. Vendors should recommend training strategies and related costs for technical staff.

Unite Agrees – Unite has built in \$5,000 of training that the GCCISD can use for technology training during the first twenty four months of the WAN implementation. If this training resource is not used for technology training on the WAN it can be used for any training in technology as determined by the GCCISD Technology staff.